

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027456**Date Inspected:** 17-Apr-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** On Site**CWI Name:** Sal Marino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG Components**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived on site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor the welding operations performed by American Bridge Fluor (ABF) welding personnel. The following observations were:

Segment 12W between PP109 and PP109.5 W5 Line - Deck Access Hole:

This QA Inspector observed ABF welder Kit Lounechany (Welder ID 4985) performing the complete-joint penetration (CJP) groove weld operation per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position after the groove was back-gouged to sound metal connecting the Deck Access Hole (DAH) insert plate to the Deck "A" plate between panel point PP109 and PP109.5 along Grid line W5.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the CJP groove weld operation, that the minimum preheat temperature as per the approved WPS was established; and afterwards verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1110A Revision 1 using E7018 (1/8") diameter electrode.

After the CJP groove weld operation of the DAH insert plate was completed at the aforementioned location, this QA Inspector observed ABF welder Kit Lounechany performing the grinding operation of the excessive weld reinforcement on the cover passes of the CJP groove weld at the end of this QA Inspectors' shift.

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Segment 12W between PP109 and PP109.5 W2 Line - Deck Access Hole:

This QA Inspector observed ABF welder Steve Davis (Welder ID 7889) performing the Air-Carbon-Arc gouge and grinding operation to excavate the second (2nd) side of the complete-joint penetration (CJP) groove weld of the Deck Access Hole (DAH) insert plate from the bottom side of Deck "A" plate between panel point PP109 and PP109.5 along Grid line W2.

Afterwards, this QA Inspector observed QC Inspector Sal Marino perform the magnetic-particle test (MT) inspection by the yoke method on the excavated areas of the CJP groove weld and the QC Inspector detected linear indications at several locations. These areas were marked on the groove weld for further excavation by ABF welder Steve Davis.

This QA Inspector observed ABF welder Steve Davis performing the grinding operation of the MT linear indications marked up by the QC Inspector to grind to sound weld metal at the end of this QA Inspectors' shift.

Segment 8W between PP70 and PP70.5 W2 Line - Deck Access Hole CJP weld:

This QA Inspector observed ABF QC Inspector John Pagliero perform ultrasonic inspection of a complete-joint penetration (CJP) groove weld on the Deck Access Hole (DAH) insert plate welded on Segment 8W between PP70 and PP70.5 along W2 Line. The ultrasonic inspection was in accordance with AWS D1.5-2002 Section 6.13 to the acceptance criteria of Table 6.3 for 20 mm Deck Plate "A" weld thickness.

This QA Inspector observed that the QC Inspector marked up a total of eight (8) ultrasonic rejectable indications for repair (R1).

Segment 12E between PP109 and PP109.5 E5 Line - Deck Access Hole CJP weld:

This QA Inspector observed ABF QC Inspector John Pagliero perform ultrasonic inspection of weld repairs (R1) total of (9) areas on the complete-joint penetration (CJP) groove weld on the Deck Access Hole (DAH) insert plate welded on Segment 12E between PP109 and PP109.5 along E5 Line. The ultrasonic inspection was in accordance with AWS D1.5-2002 Section 6.13 to the acceptance criteria of Table 6.3 for 20 mm Deck Plate "A" weld thickness. This QA Inspector observed that the QC Inspector marked up a total of two (2) ultrasonic rejectable indications for repair (R2).

Segment 8E between PP70 and PP70.5 E2 Line - Deck Access Hole:

This QA Inspector observed ABF welder Rick Clayborn (Welder ID 2773) performing the non-critical repair weld operation of a complete-joint penetration (CJP) groove weld per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position after the repair areas (4) locations were gouged to sound metal to remove the ultrasonic rejectable indications detected on the Deck Access Hole (DAH) insert plate CJP groove weld on the top side of Deck "A" plate between panel point PP70 and PP70.5 along Grid Line E2.

This QA Inspector observed QC Inspector John Pagliero verify prior to the start of the repair weld operation, that the minimum preheat temperature as per the approved WPS was established; and afterwards verified that the

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welding parameters (Amps and Travel Speed) were in accordance with WPS 1000 Repair Revision 2 using E7018 (1/8") diameter electrode.

This QA Inspector observed that the non-critical repair weld operation of the DAH insert plate at the aforementioned location was completed at the end of this QA Inspectors' shift.

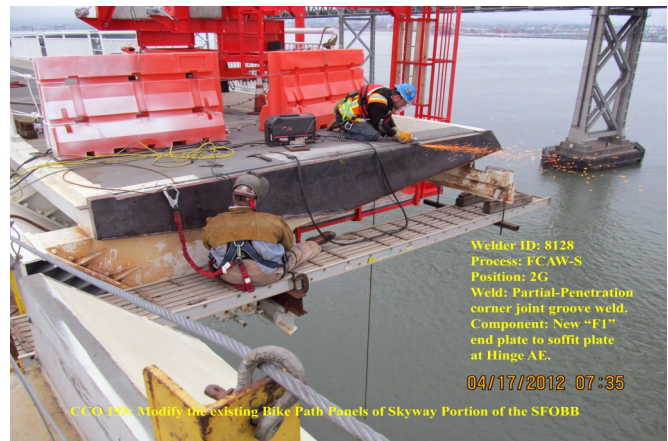
Skyway Portion of the SFOBB:

CCO: 193 - Description: Modify the existing bikepath panels at the expansion joints of the Skyway portion of the SFOBB East Span Seismic Safety Program.

This QA Inspector randomly observed ABF welder Jason Collins (Welder ID 8128) performing the root, fill, and cover pass weld operation on a partial-joint-penetration (PJP) groove weld per the Shielded Metal Arc Welding (SMAW) process in the (2G) horizontal position connecting the new end plate "F1" to the existing soffit plate of the bike path box panel at the expansion joint hinge "AE" as per ABF Submittal no. 2549R2 of Contract Change Order (CCO) 193.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the root, fill, and cover pass weld operation that the preheat temperature of 150 degrees F was established and afterwards verified that the welding parameters (Amps and Travel Speed) were in accordance with ABF-WPS F1200A using the E7018 (1/8") diameter electrode.

The root, fill, and cover pass weld operation connecting the new end plate "F1" to the existing bike path box panel's soffit plate was still in-process at the end of this QA Inspector's shift.



Summary of Conversations:

Only general conversations between this QAI and QC on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

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Inspected By: Peterson, Art

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer